

WHAT IS CLAIMED IS:

1. A substantially pure Type II restriction endonuclease obtainable from *Bacillus thermoglucosidasius* 36A (ATCC Accession No._____) recognizing the following base sequence in double-stranded deoxyribonucleic acid molecules:

5 5'-GCGATGN>NNNNNNNNN↓-3' (SEQ ID NO:9)
 3'-CGCTACNNNNNNNNNNNN↑-5'

10 and having a cleavage position defined by the arrows

2. A method for obtaining the Type II restriction endonuclease of claim 2, comprising cultivating a sample of *Bacillus thermoglucosidasius* 36A under conditions favoring the production of said endonuclease and separating said endonuclease therefrom.

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20 3. The Type II restriction endonuclease of claim 1, wherein the restriction endonuclease is purified from *Bacillus thermoglucosidasius* 36A (ATCC Accession No._____) .